DOCUMENT RESUME

ED 107 488 SP 018 864

AUTHOR Gullickson, Arlen R.; Horn, Jerry G.
TITLE A Strategy for Disseminating Elementary Science Curricula.
PUB DATE Mar 75
NOTE 12p.; Paper presented at the Annual Meeting of the National Association for Research in Science Teaching (48th, Los Angeles, California, March 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Curriculum; *Curriculum Development; *Elementary School Science; *Information Dissemination; Mass Media; *Program Descriptions; Science Curriculum; *Science Education; Science Materials; Surveys
IDENTIFIERS *South Dakota

ABSTRACT

Presented is a description of a program developed to provide better dissemination of curricula, particularly for elementary school teachers and principals. The strategy described, Tactics for Applying Programs in Education (TAPE), an NSF-funded project, involved extensive use of mass media channels for creating awareness of science curricula programs and establishment of a resource services component to stimulate interest among school personnel and facilitate their exploration of opportunities for implementing available curricula. Such materials included television advertisements, brochures, journal articles and feature stories, and ads for radio and newspaper. To validate the results of the project, it was developed as a quasi-experiment. A stratified random sample of approximately 1,200 teachers, principals, and the general public was contacted by mail to learn how many were familiar with the selected curricula. These data are to be compared to a similar postassessment to be completed the following spring. (EB)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRE
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

ED107488

A Strategy for Disseminating Elementary Science Curricula

Arlen R. Gullickson

Jerry G. Horn

School of Education
University of South Dakota
Vermillion, South Dakota 57069

A paper presented at the NARST 48th Annual

Meeting, March 18-20, 1975, Los Angeles, California

SE 018 864

A Strategy for Disseminating Elementary Science Curricula

For two decades the National Science Foundation (NSF) has been a leader in the development of new curricular programs and the training of teachers for using those programs. Spurred by recent surveys which show a relatively low percentage of teachers using the newly developed materials, NSF has given a high priority to implementation programs, programs which are designed to increase utilization of the new curricula in elementary and secondary schools. As a result, it is now funding projects which have potential for increasing the utilization of "recently developed" quality curricula. In its guidelines for proposals is the statement - "The success of implementation projects must ultimately be judged in terms of the effectiveness with which the materials and practices in question are utilized in the classroom."

During the past two years, universities and other eligible institutions have utilized a number of techniques for their dissemination and utilization efforts. Those projects in large measure "spin off" from the basic academic year institute, summer institute, or inservice model that was in the past a trademark of NSF projects. At the same time, however, NSF has actively encouraged and funded proposals which incorporate unique but potentially effective approaches to the dissemination/utilization problem. Project TAPE at the University of South Dakota was funded as a project in that category.

TAPE, Tactics for Applying Programs in Education, is unique both in its extensive use of mass media channels for creating awareness of new curricula and in its establishment of a Resource Services component to stimulate interest among school personnel and facilitate their exploration of opportunities for implementing available curricula. For example, TAPE makes extensive use of commercial television, a free telephone access system, and a network of regional consultants.

Research evidence (Rogers and Shoemaker, 1971) shows that a rather simple two stage approach is most effective in producing the familiarity and interest necessary for a high rate of adoption of an innovation. The two steps are: 1) use of mass media channels to create an awareness of the desired innovation, then 2) individualize and personalize the communication to relate details of the innovation. The extensive use of this approach by commercial interests is blatantly obvious each time you watch television or walk into a store. Perhaps it has been the aura of commercialism that has restrained educators from the use of these techniques to distribute innovative curricula.

There is the risk that a mass media approach may "turn off" potential users. Such a risk seems slight however, and the opportunities for worthwhile gains seem to more than offset them. Perhaps it was the knowledge that such risk exists that caused the division of this project into two distinct stages, awareness and interest. The first stage will use commercial techniques with mass media channels to create awareness and cause an initial contact. That initial contact will be with University of South Dakota staff, so the first personalized contact and all subsequent communications will involve science educators not persons having commercial interests.

Figure 1 depicts those two stages, the activities associated with each, and serves as the basis for the discussion which follows.

Awareness:

Professional assistance was sought for the development and dissemination of most awareness information. Gorsuch and Associates, Inc. of Sioux Falls, South Dakota has been retained to develop materials and coordinate the release of information through those channels. The extent of those activities is illustrated in a calendar of events (Table 1) which he submitted in July 1974. That table shows what materials will be developed, the media channels to be used for their dissemination, and the timing for dissemination.

Although five channels will be used (Figure 1), two will be given greatest emphasis, each for a selected audience. Direct mail to individual teachers and administrators will insure that educators of the region learn of the Resource Services available to them. Educational journals will provide a secondary or back-up system for insuring that the message reaches them. Television advertisements will in turn provide the primary means for acquainting the public with Resource Services; the newspaper and radio materials will serve to support the information given in the ads and provide a more definitive call to action. This "shotgun" approach for making the public aware is being used in the expectation that interested parents, students, and persons in general will help nudge educators into action. Altogether the awareness campaign will comprise a concerted effort to cause persons to call Resource Services at the University of South Dakota, and thereby enter into an interest stage.

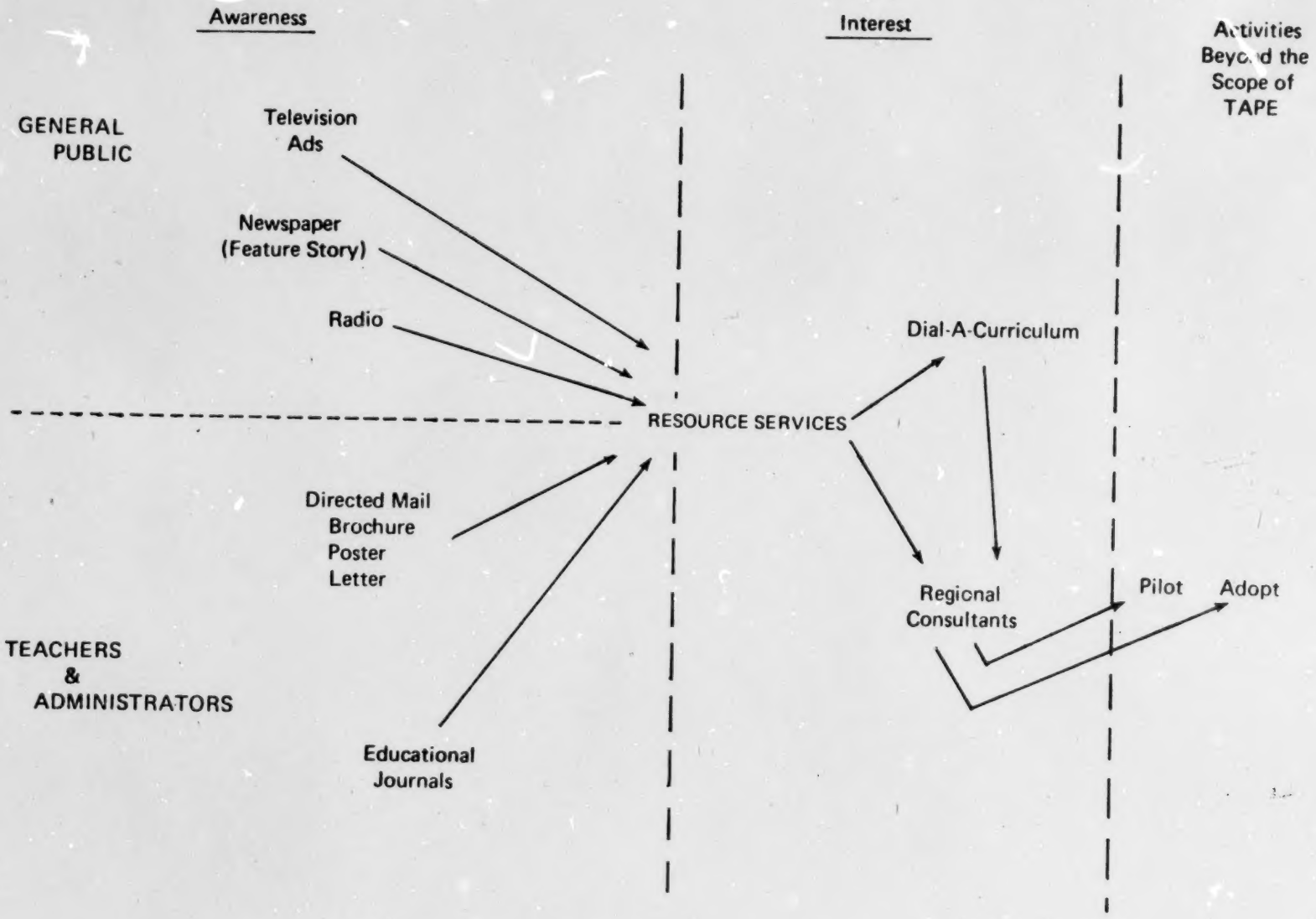

Figure 1. Flowchart for achieving Awareness and Interest

Table 1

Calendar of Events as submitted by

Richard Gorsuch & Associates

1974

July	Discuss Fees Systems Outline approach to media, PR and production Design schedule Budget Breakdown Research basic information (substance materials to write/create from)
August	Meet with talent and producers Begin coded mailing list development Begin research at School of Education, U.S.D.
September	Begin development of coded mailing lists Media, schools, government, community, individuals, national publications, other, etc. Contract completed, approved Meet with KELO Land TV to select spot schedule and discuss PSA cooperation Design brochures; write copy, begin photography and layout Final approval of initial PR copy Write and send initial PR information to select media (SDEA Journal - SDEA Convention - early October) Begin development of TV spots and film Hold creative conference with talent Outline objectives and schedule Design storyboards Observe classroom demonstrations Meet with Vendors
October	Final approval of brochure layout, photography and copy - test against principals and elementary science teachers Final approval of spot schedule on KELO Land TV. Contract for time Write audio tape copy Design film and TV spot objectives and research information
November	Film and record for TV spots Advisory Council meeting in Vermillion Review TV spot strategy, copy, film development, PR, strategy, audio tapes, etc. Final approval of blueprints, etc. of brochures Final approval of TV spots

1974 (continued)

December	Final approval of audio tapes Print brochures Mail montage PR Release PR to all media (with brochure) Mail brochures to public schools, teachers, organizations, service clubs
1975	
January	Begin spot schedule placement; January 13, 1975 Preliminary letter to principals, Jan. 6, 1975 Poster, brochures and spot placement schedule Jan. 9, 1975 Follow-up letter to principals, Jan. 13, 1975 Letter to superintendents, Jan. 30, 1975 Release PSA radio program Continue development of film
Febraury	Begin evaluation process Post card to principals Feb. 19, 1975 Continue film production
March	Prepare PR on analysis of TAPE project Release PR to select media Refine strategy and tactics as necessary Continue film production
April	Continue film production
May	Final approval of Answer Print - Film Direct mail to administrators, principals, science teachers, and other special groups

Interest

When persons call free the advertised numbers, they will be taking a first step to surmount South Dakota's distance/isolation problem in personalizing communications. Those persons will reach Resource Services, a new unit within the University of South Dakota, supported by TAPE. A telephone receptionist will receive the call, 1) provide Dial-a-Curriculum services as advertised in the awareness stage, and 2) provide preliminary information to school personnel who desire the assistance of a regional consultant.

Dial-a-Curriculum consists of a set of four recorded messages. Pertinent characteristics of the three curricula, ESS, SCIS, S-APA II, will be described each on its own 3-minute tape. A fourth recorded message will describe the TAPE project and the services it provides to communities and schools. At the request of a caller, the desired tape will be coupled (mechanically) to the telephone and the caller will receive the recorded message. After listening to a tape or tapes if he/she is interested in more information or assistance, the regional consultant system will be described to him/her. Persons desiring the assistance of a consultant will receive a return call by a TAPE Regional Consultant. That call will serve to validate the original call, to assess the nature of the request, and where appropriate, to make formal arrangements for consultation. A letter of confirmation will be sent to the school after arrangements for consultation have been made.

TAPE has six regional consultants. Each serves as a field representative for Elementary Science Study (ESS), Science Curriculum Improvement Study (SCIS), and Science - A Process Approach (S-APA II) in a distinct geographical area (see Figure 2). Although the consultant's duties will be many and varied, each will be

Project TAPE

Regional Consultation Areas
1974-75
School of Education - University of South Dakota

Figure 2

expected to respond to school districts and other responsible groups or individuals consultation services relative to ESS, SCIS, and S-APA II. Each consultant will: 1) be a professional educator, 2) have training and experience in the three curricula, and 3) have training and experience in developing and conducting needs assessments in a local school. Selection of those persons is now in progress (September, 1974) and all will be given a one-week orientation to TAPE consulting procedures. All will live in the area they serve and will provide their services free of charge, with their expenses being compensated through the project.

Hoped for outcomes from the consultant - school interaction will be an improved understanding by school personnel of new elementary science curricula and an understanding of how each curricula could fit into their own system. Where appropriate the consultant will help a school district set up a plan for piloting or adopting one of the three curricula.

TAPE will be pervasive; whether it will improve the implementation rate of NSF curricula is not now known. We will however, find out. During year 1, two major survey efforts will take place. In progress now, September, 1974, is a baseline assessment of both school personnel and the general public. Within the South Dakota region and a selected control area, teachers, principals and persons in the general public, are being contacted by mail to learn how many are presently familiar with the selected curricula. That information will be compared with the results of a similar survey to be completed during the spring of 1975. The telephone receptionist and the regional consultants will all keep logs of persons contacted and the services involved. As a result of those pieces

of information, we will learn not only about the effectiveness of the information dissemination technique, but we will also be able to determine the impact in terms of planned implementation of new curricula for 1975-76.